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## **CLAIMS**:

- A process for the preparation of an anionic clay and boehmite-containing composition wherein a precursor mixture comprising a divalent metal source and a trivalent metal source is subjected to at least two aging steps and wherein at least once between two aging steps an aluminum source is added.
  - 2. The process according of claim 1 wherein the first aging step is conducted at a higher temperature than a following aging step.

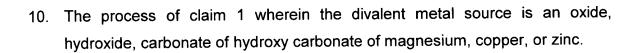
3. The process of claim 2 wherein the first aging step is conducted under hydrothermal conditions and a following aging step under non-hydrothermal conditions.

- 15 4. The process of claim 1 wherein the first aging step is conducted at lower temperature than a following aging step.
  - 5. The process of claim 4 wherein the first aging step is conducted under non-hydrothermal conditions and a following aging step under hydrothermal conditions.
  - 6. The process of claim 1 wherein at least two of the aging steps are conducted at a different pH.
- 25 7. The process of claim 1 wherein the aluminum source added between two aging steps is aluminum trihydrate or a thermally treated form thereof.
  - 8. The process of claim 1 wherein at least once between two aging steps a drying step is conducted.
  - 9. The process of claim 1 conducted in a continuous mode.

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- 5 11. The process of claim 1 wherein the trivalent metal source is an oxide or hydroxide of Al, Ga, Fe, La, or Ce.
  - 12. The process of claim 1 wherein additives are present during at least one of the aging steps.
  - 13. The process of claim 1 wherein the anionic clay and boehmite-containing composition is subjected to an ion-exchange treatment.
  - 14. An anionic clay and boehmite-containing composition obtained by the process of claim 1.
  - 15. A process for the preparation of a solid solution and/or spinel-containing composition, wherein the anionic clay and boehmite-containing composition of claim 14 is subjected to a heat-treatment at a temperature between 300 and 1200 °C.
  - 16. A process for the preparation of an anionic clay-containing composition, wherein the anionic clay and boehmite-containing composition of claim 14 is subjected to a heat-treatment at a temperature between 300 and 1200 °C to form a solid solution-containing composition, and the latter composition is rehydrated to form an anionic clay-containing composition.
  - 17. A catalyst composition comprising the anionic clay and boehmite-containing composition of claim 14.

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- 18. A process for the preparation of a catalyst composition comprising the steps of
  - a. preparing a composition comprising the composition of claim 14,
  - adding the composition of step a to a slurry containing other catalyst components or precursors thereof, and
  - c. shaping the resulting composition.
- 10 19. The process of claim 18 wherein the composition prepared in step a. is treated with an acid or base before adding it to the slurry in step b.
  - 20. The process of claim 18 wherein the composition prepared in step a is treated thermally or hydrothermally before adding to the slurry in step b.
  - 21. The process of claim 18 wherein the composition prepared in step a. is added to the slurry in step b. in suspended form.
- 22. The process of claim 18 wherein the composition prepared in step a. is added to the slurry in step b. in a dry form.